HW#42: Add & Subtract Radicals

Geometry

Due Date: Tuesday, December 4th, 2012

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

**Failure to show work on all problems or use complete sentences will result in a LaSalle.**

|  |  |
| --- | --- |
| 1) Simplify | 2) Simplify |
| 3) Simplify | 4) Simplify |
| 5) Simplify: | 6) Simplify: |
| 7) Simplify: | 8) Simplify: |
| 9) Convert scientific notation into standard notation  7.24 x 10-9 | 10) Convert scientific notation into standard notation  2.76 x 106 |

Mixed Review

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| 11) Line l and line p are parallel. Given that the equation for line p is 4x=2 and line l passes through the point (0,7), what is the equation for line l ? | 12) What is the equation for the line perpendicular to 6x= 6y+9 and through the point (3, 9)? |
| 13) Point m is the midpoint to line segment BC. Point C has the coordinates (6,3) and point B has the coordinate (-6,5), what are the coordinates for point m? | 14) On a number line, point A is at -8 and point B is at -14. What is the coordinate of the midpoint, m? |
| 15) What is the slope of the line that passes through the points (-5, 2) and (8,4) in the standard coordinate plane? | 16) Write the equation of the line that passes through the points (3,4) and (0,5)? |

HW#43: Solve Radical Equations

Geometry

Due Date: Wednesday, Dec. 5th, 2012

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

**Failure to show work on all problems or use complete sentences will result in a LaSalle.**

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| 1) Simplify: | 2) Simplify: |
| 3) Simplify: | 4) Simplify: |
| 5) What are the solutions to the following equation? | 6) What are the solutions to the following equation? |
| 7) What are the solutions to the following equation? | 8) What are the solutions to the following equation? |
| 9) Expand:  a.  b.  c. Which value is smaller? | 10) Given the diameter of a circle is 24 mm, what is the area of the circle?  (Leave your answer in terms of ) |
| 11) The volume of a cone is given by the formula: , where r is the radius and h is the height. What is the volume of a cone with a diameter of 144mm and a height of 40mm? | 12) What is the area of a swimming pool with a length of (3x+5) and a width of (4x-6y)? |
| 13) Solve the following equation in terms of b, give all solutions: | 14) How long is a badminton birdie in the air if the equation of it being hit off of a racket is ? |
| 15) What is the sum of the solutions to the equation, | 16) If , then find the value for b. |

HW#44: Simplify Cube Roots

Geometry

Due Date: Thursday, Dec. 6th, 2012

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

**Failure to show work on all problems or use complete sentences will result in a LaSalle.**

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| 1) Simplify: | 2) Simplify: |
| 3) What are the solutions to the following equation? | 4) What are the solutions to the following equation? |
| 5) What is the cubed root of 729?   1. 9 2. 10 3. 243 4. 726 | 6) Which of the following statements best describes the cubed root of a number *x*, or ?   1. A number that is equal to *x* when it is multiplied by 3 2. A number that is equal to *x* when it is divided by 3 3. A number that is equal to *x* when it is cubed 4. A number that is equal to *x* when it is squared |
| 7) The volume of a standard, six-sided number cube used in dice games is 3.375 cm3. What is the length of one side of the number cube?   1. 0.563 cm 2. 1.125 cm 3. 1.5 cm 4. 1.7 cm | 8) |
| 9) Simplify: | 10) Simplify: |
| 11) Find:  a.)  b.)  c.)  d.) What did you notice with parts a, b, and c? | 12) Given that the diameter of a circle is 36 feet, what is the circumference of the circle? |
| 13) What is the simplified value of when x=5 and y= 4?  Leave your answer in exact form, i.e. no decimals!!! | 14) If a Frisbee is thrown up and follows the equation , how long will it take for the Frisbee to hit the ground? |
| 15) Find the area of a city block that has a length of (x-2y) feet and a width of (4y+x) feet. | 16) The volume of a sphere is given by , where r is the radius. What is the volume of a globe with a diameter of 18 inches? |
| 17) If , what is a equal to? | 18) Find the positive solution for a in the equation |

HW#45: Simplify Complex Radicals

Geometry

Due Date: Friday, Dec. 7th, 2012

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

**Failure to show work on all problems or use complete sentences will result in a LaSalle.**

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| 1) Simplify: | | 2) Simplify: | |
| 3)  - | | 4) | |
| 5) Simplify: | | 6) Simplify: | |
| 7a) Which of the following is equivalent to the imaginary  number i ?  A) -1 B) - C) 1 D)  7b) What is the standard form for writing a complex number? | | 8) Simplify:  A)  B) 2i  C) 3i  D) -5  E) 5i | |
| 9) Simplify:  A) 4i  B) 5i  C) 10i  D)  E) | | 10) Simplify:  A)  B)  C)  D) 24i  E) None of the above | |
| 11) = | 12) = | | 13) = |
| 14) (-2 -6i) – (4 – 6i) | 15) | | 16) Simplify: |
| 17) A rectangle has a length of inches and a width of in. Leave your answer in simplest radical form. | | | |
| a. Find the perimeter. | | b. Find the area. | |

Mixed Review

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| 18) Simplify: | 19) Simplify: |
| 20) Simplify: | 21) The circumference of a circle is 42. What is the diameter of the circle? |

HW#46: Multiply Complex Numbers

Geometry

Due Date: Monday, Dec. 10th, 2012

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

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| 1) Simplify: | | 2) | | |
| 3) Solve: | | 4) Solve: | | |
| 5) = | 6)  = | | | 7) is equivalent to:  A)  B)  C)  D) |
| 8) (3i – 8) – (-11i + 4) – (i -1) | 9) | | 10) Which real number is equivalent to ?  A.-1  B.  C. 1  D. 4  E. There is no equivalent real number | |
| 11) 4(9 = | 12) 4 = | | | 13) |
| 14) | 15) | | | 16) 2 |

**Mixed Review**

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| 17) Ms. Mason wants to build a turtle pen that is 3 times the area of her current turtle pen. The turtle pen that she currently has is 3-foot by 7-foot. What will the new turtle pen’s area be? | 18) Line p is parallel to line q. Line q passes through the point (4,-5), and the equation for line p is -5x+10y=15. What is the equation for line q? |
| 19) Simplify: | 20) Solve: |
| 21) Simplify: | 22) Simplify: |